

#### **CREW**

# Care, Retirement & Wellbeing of Older People Across Different Welfare Regimes

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**Axis 4: Federal public strategies** 





#### **NETWORK PROJECT**

#### **CREW**

Care, Retirement & Wellbeing of Older People Across Different Welfare Regimes

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#### **ABSTRACT**

#### Context

As societies age, the wellbeing of the elderly increasingly becomes a priority and challenge. CREW is an interdisciplinary team from six institutions in five countries poised to examine the interrelationships between social participation (in the forms of paid work and caregiving) and health and wellbeing.

#### **Objectives**

CREW's research covered four broad topics. First, we investigated the determinants of health and wellbeing in older age and critically examine old and new measures. The project had also to consider the impact of the unforeseen recent pandemic on wellbeing of older adults. Second, we described patterns of caregiving and the impact of providing care on the wellbeing of caregivers. Third, we analysed the challenges faced by pension systems as consequence of changes in survival, family dynamics and work patterns. Finally, we examined the population of older adults without close kin, analysed its characteristics, and how the welfare state shapes their wellbeing. Gender and welfare policies were transversal themes of each topic, as they shape all of the dynamics analysed.

#### **Conclusions**

CREW fills key policy-relevant gaps in existing research, ultimately contributing to knowledge that should inform policies to guarantee high quality of ageing and equal opportunities for successful ageing for both men and women and for people of different socio-economic groups.

(1) Our research demonstrated that older people wellbeing is a complex phenomenon that needs to be studied using rich longitudinal data and appropriate methods. First, older people wellbeing is a multidimensional concept that needs to be examined using several measures capturing different aspects that react differently to events and older people's conditions. Second, the determinants of health and wellbeing at older ages are multiple and interrelated. Our studies emphasized the need to take a life course perspective that analyse ageing as a process, which means that older people wellbeing depends on the experiences at different stages of life starting from childhood. CREW also demonstrated the importance of comparative studies because of the important role that welfare regimes have in influencing older people's health and wellbeing. Third, during the pandemic, intergenerational contacts played a fundamentally protective role on contagion once we control for exposure to infection. (2) CREW contributed to the literature on caregiving by showing that this activity has both positive and negative aspects. The impact of caregiving on caregivers' health is highly heterogeneous as it depends on intensity and type of caregiving, whether or not it is combined with other activities and on the country context. (3) Our research showed that retirement intentions depend of past family and work histories. However, findings differ according to the welfare regimes. Particularly, social-democrate countries and the Netherlands offer better family policies and/or measures to compensate the motherhood disadvantage in the labour market. (4) CREW's research has also examined recent and likely future changes in kin availability: in the near future, a higher proportion of individuals is going to age without kin (children, grandchildren, etc.). Given the importance of kin as providers of practical and emotional support, the shrinking of kin networks requires policy makers to take actions to counterbalance the negative consequences this phenomenon may produce on older people's health and wellbeing in the coming decades.

#### Keywords

Caregiving, health, intergenerational relationships, retirement, successful ageing, welfare regimes, wellbeing

#### 1. INTRODUCTION

Against the background of population ageing, understanding how to improve the wellbeing of the older population has become one of the most important societal challenges. It is not simply a matter of living longer but also better, what the World Health Organization refers to as adding "life to years" (WHO 2012). Many terms encapsulate this notion of "ageing well" such as successful, active and healthy ageing, which all acknowledge the need to look beyond physical health to consider other aspects of ageing. For example, Rowe and Kahn (1997) defined successful ageing as "avoidance of disease and disability, maintenance of high physical and cognitive function, and sustained engagement in social and productive activities". Much ageing research is often approached from a strict medical perspective, ignoring the broader social context, family and social networks, and relevant institutions. Our objective was to examine the interrelationships between two important dimensions of successful ageing: participation in society, in particular in the forms of caregiving and working, and health and wellbeing. According to our guiding theoretical model, participation includes both paid and unpaid work and is viewed from a multi-generational perspective. It includes caring for grandchildren, a spouse, or other relatives (Dykstra & Komter 2012) as well as paid work including increasingly common categories between work and retirement such as bridge employment (Dingeman 2016). Our definition of wellbeing extends beyond physical and mental health to include cognitive functioning, subjective wellbeing, subjective age and survival expectations. Our hypothesis was that an individual's work/care package has complex influences on his/her health and wellbeing, and that this relationship can be moderated by (a) individual level "coping" resources (including one's social network, income, education, etc.); (b) gender and (c) macro-level welfare context and policies.

Gender and welfare regimes were transversally analysed. Examining how the aging process differs by gender is imperative yet understudied (Timonen & Arber 2012). Moreover, social policy provision has been shown to influence intergenerational care giving in complex and multidimensional ways (Bordone, Aassve & Arpino 2016; Emery 2016; Albertini & Kohli 2013; Brandt & Deindl 2013; Saraceno & Keck 2010). Therefore, gender and policy context were incorporated into each of our research areas. CREW aimed to fill key four policy-relevant gaps in the existing research: (1) examining how social policy provisions are patterned from an intergenerational perspective; (2) measuring the effects of welfare regimes on caregiving and retirement decisions and how they differ by gender; (3) assessing the effects of caregiving, work and retirement on health and wellbeing at old ages; and (4) investigating the role of policies in shaping successful ageing for men and women and those from different socioeconomic groups. Moreover, (5) the project had also to consider the impact of the unforeseen recent pandemic on wellbeing of older adults and to formulate recommendation about intergenerational policies.

#### 2. STATE OF THE ART AND OBJECTIVES

#### Definitions, measures and determinants of wellbeing at older ages

Individual and population aging are usually defined using chronological age. The United Nations (UN) conventionally set the threshold for "being old" at 60 or 65 (UN 2001), but recent studies have shown benefits of employing multiple definitions of aging (Christensen et al.2009; Sanderson and Scherbov 2008, 2013). Along these lines, some suggest that subjective age should be incorporated in ageing studies along with more traditional health and wellbeing measures (e.g., Bordone and Arpino, 2015; Demakakos, Gjonca, & Nazroo 2007). Research also suggests that the factors that influence the health and wellbeing of older people differ from those that matter for younger adults (Lomranz et al. 1990; George et al. 1985). For example, time use changes in old age: older people spend more time alone, at home, and on passive activities (Gauthier & Smeeding 2010; De Jong-Gierveld & Havens, 2004) and this may have important consequences for health and wellbeing. Older people's health and wellbeing is thought to be shaped by factors through their lives, from very early experiences as well as mid-life conditions (Wahrendorf & Blane 2015; Deindl 2013; Niedzwiedz et al. 2012). Past studies have tended to overlook diverse subjective measures of aging as well as factors throughout the life course shaping health in older age. Moreover, most research focuses on one national context and limited comparative research is available to understand how time use (including activities, companionship, and location), and life course events shape the wellbeing of older people in different cultural settings and welfare models.

This study investigated the determinants of health and wellbeing in older age. We examined a wide set of aging measures (felt age, perception of old age, subjective life expectancy) and tested which factors are of particular importance for older people, accounting for the distinction between young old and oldest old. We also described patterns of time use, changes in time use with ageing, and its impacts on subjective wellbeing. Finally, we investigated the direct and indirect effects of early-life conditions on the wellbeing of older people. We adopted a comparative approach to account for different cultural and policy contexts.

Understanding the determinants of health and wellbeing at older ages going beyond traditional measures and explanations can guide policies to improve the wellbeing of older people. Our study helped identify groups who most need external support, a first step to providing tailor-made solutions for these at-risk groups.

Pandemic was an unforeseen event, obviously not included in the original project, but which had to be considered as it put under pressure the informal and formal care system and older adult's wellbeing. In particular, intergenerational solidarity produced an unexpected ambivalent effect on wellbeing at older age, becoming source of help but also vector of contagion. A hypothesis in the literature about family contacts and COVID-19 is the "intergenerational contacts hypothesis" (Arpino et al. 2020). One evidence in support to the "intergenerational contacts hypothesis" has been provided at the country level by Bayer and Kuhn (2020), finding a positive relation between the co-residence of generations and the case fatality rate. Arpino et al. (2020) have extended the analyses by considering a larger set of intergenerational relations indicators at both country and subnational level. They show a positive

association between the intergenerational indicators and COVID-19 cases at the country level, but opposite results at the sub-national level. In an opposite view, we can assume that the family network protects its members from contagion (Arpino et al. 2020). The mechanism can be twofold. First, previous literature has shown that family can help its members to avoid risky behaviours (Umberson et al. 2010; Duncan, Wilkerson, and England 2006; Umberson 1992). Family members can encourage the respect of rules imposed during the lockdown and can help elderly with the daily activities that should accomplished outside home, as shopping, for example (Arpino et al. 2020). This aspect suggests that the risk of infection can be particularly high for childless old people who should care alone for shopping and other outside activities. A second mechanism protecting from COVID-19 infection is more indirect as several studies have shown that family relations are related to individuals' health and wellbeing (e.g., Mansson 2016; Holt-Lunstad et al. 2015; Arpino and Bordone 2014; Thoits 2011; Hagedoorn et al. 2006; Silverstein and Bengtson 1991). The challenge for our project was to understand, on the one hand, the role of intergenerational ties in contagion and, on the other hand, how welfare states could protect from contagion, while preserving wellbeing of older people.

## The joys and burden of caring (grandparenting, care of frail family members and caregivers' wellbeing

As a consequence of increased life expectancy coupled with fertility decline, compared to the early 1900s, grandparents today are more likely to survive throughout their grandchildren's childhood and have fewer grandchildren (Hagestad, 2006; Harper, 2005). This has created an unprecedented opportunity for the development of intergenerational relationships (Timonen & Arber, 2012). A large proportion of grandparents provide care to their grandchildren (about 57% in Europe; Hank & Buber 2009) and there is considerable variation across and within countries (Bordone, Arpino & Aassve, 2016; OECD, 2014; Kemp, 2003). In addition to providing care to younger kin, many older adults also provide care to aging parents (and spouses), especially among subpopulations with fewer resources (Margolis & Wright, 2016). Therefore, it is crucial to study the consequences of providing care (to grandchildren, aging parents, or partners) for the health and wellbeing of older adults.

Most previous research on grandchild care and wellbeing focuses on custodial grandparents in the United States, neglecting other contexts and non-coresident families. Important measures of wellbeing such as cognitive functioning, social engagement and subjective aging are understudied, despite their importance for the successful aging model. Moreover, methodological issues such as reverse causality and selective attrition have not been properly addressed and cause important biases in existing research. There is also limited research on effect of grandchild care when in combined with other caregiving activities.

Our research addressed each of these limitations. We extended past studies by examining patterns of caregiving across and within Europe and Canada and by considering noncustodial grandparents. More specifically, as some older adults may be strained by the simultaneous demands of caring for their grandchildren and other kin, e.g. a partner (Meyer, 2012; Grundy & Henretta, 2006), we examined the prevalence of people who provide care to several family members, how this varies across countries, and how much of this variability can be explained by differences in the policy context. We analysed the

impact of providing grandparental childcare and other caregiving activities on different measures of wellbeing (physical and mental health, cognitive functioning) and ageing measures (e.g., subjective life expectancy). We also studied to what extent opportunities for active ageing (e.g., participation in clubs and associations) are limited for persons who care for (several) family members. We examined how the effect of multiple caregiving roles varies across countries as function of policies. Because the effects of caregiving are likely gendered (see e.g., Timonen & Arber 2012; Arpino & Bordone 2016), we assessed gender differences in the prevalence of multiple caregiving and how effects differ for women and men.

Given the high proportion of older people providing either grandchild or elder care, this research informs policy makers on the wellbeing consequence of a common activity that is likely to raise in the future (Dukhovnov & Zagheni 2015), as populations age and women's labour force participation increases. This WP also informs policymaking in the area of successful aging, given our focus on social participation, policies, and gender.

#### Retirement, health, caregiving, and wellbeing: who, when, how?

Retirement decisions are shaped at the macro level by demographic, economic changes, and pension system factors (OECD 2014, 2015). They are also shaped at the individual level by demands from family members and employment histories (i.e. employment interruptions and type of occupation) (Van Bavel & De Winter 2013; Loretto & Vickerstaff 2012; Hank 2004). The transition to retirement affects several dimensions of people's lives, including leisure and civic activities (Pinquart & Schindler 2009), income (Milligan 2010), objective and subjective health (e.g. Coe & Zamarro 2011), and even survival chances (Hernaes et al. 2013).

Causes and consequences of retirement decisions have been mainly studied on small samples (e.g., Reitzes & Mutran 2004) or in a single country (e.g., Pinquart & Schindler 2007; van den Bogaard, Henkens & Kalmijn 2016) thus limiting external validity. Moreover, few estimates are causal (e.g., Mazzonna & Peracchi 2016; Bonsang & Perelman 2012). Finally, few studies explicitly tested the mechanisms through which retirement affects health and wellbeing or how welfare policies shape these mechanisms and outcomes.

At the macro level, this research developed instruments for lasting and equitable pension systems, accounting for gender and age specificities, and national idiosyncrasies. At the micro level, we investigated if and how career interruptions affect the timing of retirement decisions and the economic consequences of the transition to retirement and explored the differences between men and women, as well as differences across countries and welfare regimes. We examined to what extent care provided to grandchildren, the partner or parents influence retirement decisions. It is important to measure the impact of the work and family histories on retirement to implement policies that compensate for disadvantages in pension that might be related to parenthood.

#### Ageing without (close) kin and consequences on wellbeing

Social relationships and resources available from kin affect aging and wellbeing trajectories of older people (York Cornwell & Waite 2009). The share of older adults without (close) kin is likely to increase in the near future because of growing rates of childlessness (Miettinen et al. 2015, Lin & Brown 2012), the increasing number of single child families, and the increase in divorce and non-marital unions. Moreover, growing geographical mobility may reduce children's availability to care for elderly parents. Having no partner or children may put older people's wellbeing at risk (Hansen et al. 2009; Koropeckyj-Cox et al. 2007; Pienta et al. 2000; Dykstra 1995) because of limited welfare (pension) support, social isolation, and limited social support (Litwin 2010; Umberson et al. 2010). Limited kin networks may be particularly destructive at key turning points such as retirement or a health shock (Castiglioni 2002). The effects of kin for the health and wellbeing of older adults are likely different across welfare regimes, which to varying degrees substitute for the support of a partner and children, and affect the necessity of the elderly to support their kin.

We know relatively little about how those without (close) kin fare in older age and sometimes the results are contradictory (Tanturri, De Santis & Seghieri 2008; Festy et al. 2008). We do not know which support is available to the elderly without (close) kin, what further support is needed, and how social policies fill this gap. In addition, we do not yet understand the complex ways in which the public policies, private support, and non-profit support work together, and how different combinations of family, social networks and social policies jointly affect the wellbeing of older adults.

Our research addressed each of these limitations by examining the populations of single, and vertical (childless) or horizontal (only children) kin-less older adults, and investigating how they differ across national contexts. We addressed the question how the population of older adults without (close) kin is distributed in different countries, and how it is likely to change and grow in the future. We examined how older adults without kin fare under different welfare models, and to what extent the state or social networks fill the gaps of families. We investigated differences between men and women in the risks of being alone in older age and how the welfare system addresses the care needs of these subpopulations.

For designing social policies, it is critical to understand the care needs of the elderly. Thus, we need to examine the key policy-relevant scenarios of how the subpopulation of people without (geographically close) kin may change in the future. Moreover, we need to recognize the need for care of the elderly who have few kin alive, whose kin live far away or are engaged in full-time work. This is especially critical in places where per-capital resources for social welfare likely decrease due to an increasing number of older people.

#### 3. METHODOLOGY

In order to examine the complexities of ageing, wellbeing, and the welfare context, we used national and cross-national data sets, all available to the scientific community free of charge: The Survey of Health, Ageing and Retirement in Europe (SHARE: biennially since 2004; 20 countries), Generations and Gender Surveys (GGS; 19 countries), Time Use Surveys (Belgium 2013-14; Canada 2015; Italy 2014-

15; the Netherlands 2011-12, Spain 2009-10), Canadian General Social Surveys (1990; 1995; 2006; 2011; 2017), European Social Survey (biennially since 2004; 36 countries). Importantly, wave 3 of SHARE (SHARELIFE) and GGS also provide retrospective information on life histories. In addition to these individual-level data for Europe and Canada, we drawn on macro level data from different sources e.g., OECD, EUROSTAT, WORLD BANK, the Comparative Welfare States Data Set (Brady et al. 2014), Comparative Welfare Entitlements Dataset (Scruggs et al. 2014), Comparative Family Policy Database (Gauthier 2011) and MULTILINKS (http://www.multilinks-project.eu/). The cross-national surveys (SHARE, GGP, ESS) provided the data for the majority of our analysis. These population-representative data sources provide comparable data on a wide range of health measures, including: physical health (self-rated health, grip strength, limitations with activities of daily living), mental health (depression, quality of life); behavioural risks (smoking and alcohol consumption, physical activity), and cognitive functioning. They also provide important information on help and care given and received (including detailed information on grandchild care: frequency and amount of time), working status and participation in social activities.

Our multidisciplinary team drawn on a variety of statistical methods. We used methods specific for longitudinal data, critical for examining the process of aging. These included fixed and random effects models and latent variable techniques for dealing with selective attrition (Muthén & Asparouhov 2009). In addition, we used techniques to deal with inferential problems about causality: propensity score matching/weighing, instrumental variables, and structural equation models (SEM). Demographic techniques and microsimulation be used to examine how the population of older adults without kin may change in the future. To study the effects of policies and welfare regimes on caregiving, retirement and wellbeing, we used several approaches: Bayesian multilevel models (Stegemuller 2013), difference-in-difference models, or separate analyses by country or welfare regime (e.g., Bordone, Arpino & Aassve 2016; Albertini & Kholi 2013). Each approach has its advantages and weaknesses, and the choice of use is carefully made depending on the specific study.

Below are detailed data and methods used to analyse each specific research topic.

Definitions, measures and determinants of wellbeing of older people and caregiver - This research used longitudinal and comparative data from GGP, SHARE and SHARELIFE, which contain information on the wellbeing trajectories and retrospective life course data. The time use analyses relied on the most recent waves of Time Use Surveys (e.g. the Italian Time Use Survey 2014-15), which provide information on activities, companionship, location, and subjective evaluation of how pleasant the activities are.

The joys and burden of caring (grandparenting, care of frail family members and caregivers' wellbeing) - We used data from SHARE, GGS and the Canadian GSS. Fixed-effect models, propensity score matching/weighting, and instrumental variables to deal with the challenging issues of endogeneity (see e.g., Arpino & Bordone 2014).

Retirement, health, caregiving, and wellbeing: who, when, how? - Macro data are used (i.e. current and projected population age structures, employment rates by age and gender, pension systems and labour market characteristics) to understand the policy and demographic context of retirement decisions. At the individual level, we used comparative GGP, SHARE, and time use data that provide

information on employment and family histories, health, wellbeing and social participation of respondents.

Ageing without (close) kin and consequences on wellbeing - We used demographic, statistical and network methods to work with large-scale survey data: SHARE, Canadian GSS, and GGS. We used microsimulation to examine how the population of older adults without (close) kin may change in the future.

#### 4. SCIENTIFIC RESULTS AND RECOMMENDATIONS

The aim of the joint call was to support research which improves the understanding of how different approaches to welfare secure the quality of life, especially on older people. The following research questions were asked:

- I. Understanding wellbeing: how appropriate are current measures of wellbeing across the changing life course? What are the factors influencing wellbeing in old age? And, during the pandemic, how can welfare models protect from contagion, while preserving wellbeing?
- II. Welfare models and intergenerational relationships: what are the causes and consequences of caregiving at older ages? How can welfare models distribute resources, rights and responsibilities in fair and sustainable ways?
- III. Welfare models and retirement: at the macro level, how to adapt retirement age to evolution of survival? At the micro level, how the life-course affect retirement? What are the consequences on wellbeing?
- IV. Welfare models and care: how can welfare models secure the health and wellbeing for older people confronted to caring needs, subject to frailty and nearing the end of life?

The project results contribute in answering these research questions. However, the last two years of the project was affected by the pandemic. Taking advantage of the experienced cumulated in the previous years of the project, some studies were developed in order to understand the impact on older people wellbeing.

#### I. Understanding wellbeing

To understand wellbeing, we address the following questions: (1) how appropriate are current measures of wellbeing across the changing life course? (2) What are the factors influencing wellbeing in old age? (3) And, during the pandemic, how can welfare models protect from contagion, while preserving wellbeing?

(1) Our project's results highlight that a variety of objective and subjective health/wellbeing measures are needed to appropriately measure wellbeing. In addition, demographic changes (increased life expectancy and better health conditions) imply that chronological age is a poor proxy of ageing. Finally, new methods that account for heterogeneities are crucial for better policy interventions.

Several papers - some comparative and some country-specific – have been developed.

Some papers examined a wide set of aging measures (felt age, perception of old age, subjective life expectancy) in a plurality of contexts. Our results confirm that wellbeing in later life is a complex and multifaceted phenomenon and that both micro and macro factors can influence it.

A study (Gennaro, Paccagnella and Zaninotto, 2021) proposed a new approach to measure depression, in order to identify groups at risk of depression demonstrating the need to go beyond traditional measures.

(2) In a different study (Donno, Paccagnella and Tanturri 2020), we show that in those countries where the level of active aging is higher (as measured by the Active Aging Indexes, developed by the UN), the individual wellbeing (adopting a the CASP-12 indicator, a theoretically grounded measure of quality of life in older age, from SHARE survey) is also higher, net of a plurality of individual-level determinants. By using the most recent Italian Time Use Survey (2014-15) we get an insight in the association between time allocation and wellbeing in later life, in a country that is ageing rapidly, as Italy. A first study finds (Donno and Tanturri, 2022) that different sequences/schedules of time use can affect life satisfactions at individual level, other things being equal. A second study (Donno, Meggiolaro and Tanturri, 2020) shows not only that the level of activity affects wellbeing in later life, but also its social dimension, regardless the sex and living arrangement.

To investigate the direct and indirect effects of early-life conditions on the wellbeing of older people, we adopt a comparative approach to account for different cultural and policy contexts. Using rich datasets and advanced statistical techniques, we have investigated from a life course perspective a wide variety of health and wellbeing determinants. A study (Arpino et al. 2018 PlosOne) analysed how early-life conditions impact on health at older ages. The study demonstrates the fundamental role of educational attainment in transmitting the disadvantage due to poor socio-economic status.

Another study (Zanasi, De Santis, Pirani, 2022) investigated older people's wellbeing (in terms of frailty) focusing on several life domains. Health declines in old age, and the process is accelerated if adulthood is affected by one or more adverse events. Nevertheless, how relevant are these adverse episodes and what is the role played by persistence and coexistence of these disadvantages is under investigated. We tackled these shortcomings, founding that frailty inequalities may be profound and, although this is frequently overlooked, they depend on the individual life course, which means that poor conditions tend to persist up to late in life. All the disadvantages suffered in the past, in various life domains (e.g., work, health) matter, but it is their cumulative effects that turns out to be particularly harmful. Our findings call for early action against disadvantages, if the goal of "active ageing" is to be pursued.

We found heterogeneity in frailty according to the socio-economic status and according to gender. One study (Uccheddu et al. 2019 European Sociological Review) helps policy makers in better identifying socioeconomic groups at higher risk of frailty. Lower education and wealth negatively affect women health, particularly in countries with limited family policies. In other terms, the impact of social and gender inequalities on health is reduced when the welfare state facilitates female autonomy and economic independence. Similarly, another study (Uccheddu et al. 2022, Advances in Life Course Research) shows that adverse combinations of work and family circumstances are associated with reduced physical functioning (i.e., physical health) at older ages.

(3) Regarding wellbeing of older adults during the pandemic, we observed that the main source of contagion is the spouse, followed by adult children. Interestingly, household with coresident children

are not at higher risk of contagion than household without coresident children. Moreover, we showed that frequent face-to-face contact with adult children, protect older mothers from contagion (Uccheddu and Rizzi, 2022).

#### Key findings and recommendations:

Older people wellbeing is a complex multidimensional phenomenon that needs to be studied using rich longitudinal data and appropriate methods, taking a life course perspective that analyses ageing as a process and a comparative approach recognizing the role of welfare regimes.

Researchers need to address the complexity of wellbeing by accounting for several objective and subjective measures. Appropriate data and statistical methods need to be used. National statistical offices are encouraged to collect and provide to the research community longitudinal and detailed data on health and wellbeing.

Health impairment and inequalities in later life depend on the individual life course. All the disadvantages suffered in the past, in all life domains matter, but it is their cumulative effects that turns out to be particularly harmful. The early identification of frailty is crucial, as it can be stopped, and even reverted, with adequate prognosis and care. This calls for early action against disadvantages, to pursue the goal of "active ageing". In a gender perspective, our findings also suggest that policies and practices that improve work-family balance may have important benefits for population health in later life.

During pandemics, contact of older adults with non-resident children should be encouraged, with frequency of about once per week showing a protective effect against contagion, especially for women, probably because of practical help of adult children to mothers. Such contacts should of course be accompanied by protective behaviours.

#### II. Welfare models and intergenerational relationships

To make recommendation regarding intergenerational relationship, the CREW project addressed the following questions: what are the causes and consequences of caregiving at older ages? How can welfare models distribute resources, rights and responsibilities in fair and sustainable ways?

We have examined the effect of caregiving on different measures of health and we have studied the consequences of combining different caregiving activities. We also accounted for the gendered nature of caregiving and assessed whether its impact differs for women and men.

One study (Uccheddu et al. 2019 Social Science and Medicine) investigated how gender can shape the influence of care responsibilities on health at older ages, showing that starting caregiving is positively associated with detrimental health effects. On the contrary, the transitions out of the role of caregiving have in most cases no beneficial consequences on health. Most importantly, the study found evidence supporting differential effects of caregiving transitions by gender and welfare arrangement: stopping caregiving is associated with better health conditions only for Southern and Eastern European women (FIGURE 1). The study highlights the asymmetric and gendered nature of care transitions and suggests

that the impact of caregiving is somewhat permanent and has long lasting effects for the caregiver. Policies should account for this asymmetry when assessing the impact and consequences of caregiving.

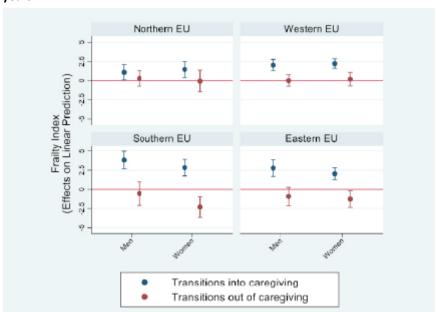
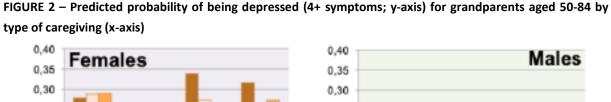
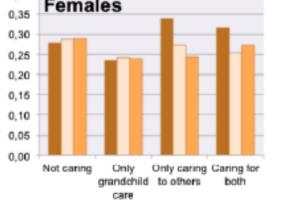
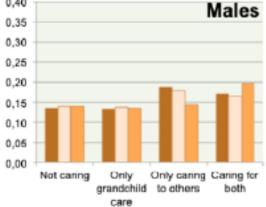


FIGURE 1 – Predicted average frailty difference, by welfare cluster and gender. Europe 2004-2017, age 50-98 years

Another CREW study (Arpino and Gómez-León, 2020 Aging and Mental Health) examined the effect on depression of combining grandchild care with other care roles among individuals aged 50 to 84 in Europe. The study shows that grandmothers who provide grandchild care only are at a lower risk of depression than non-caregivers. However, the protective factor of grandchild care disappears if care is also provided to a co-resident family member (FIGURE 2).







We also found that grandparents who provide care to their grandchildren tend to report a higher subjective wellbeing compared to grandparents not engaged in grandchild care (Arpino, Bordone and

Balbo, 2018). The study also found that the gap in subjective wellbeing was particularly strong in countries where it is socially expected for grandparents to have a role as providers of childcare. The study did not find striking differences by gender in the association between grandchild care and subjective wellbeing, indicating that gendered effects of care provision may depend on the specific outcome considered.

Finally, Dantis, Rizzi and Baudin (forthcoming in European Journal of Population) show that grandparenting positively affects adult children fertility intentions conditionally to the quality of the relation between generations, indicating that intergenerational solidarity has some relational preconditions. Moreover, grandparenting affects children's intentions to have a second child but not intentions to have a third child. This could depend on age of grandparents that is higher for adult children who already have two children. Moreover, grandparents might be less likely to encourage the arrival of a third grandchild preventing care from becoming too intensive, a result that is consistent with findings from another paper of the project, showing that grandparenting is no more beneficial for grandparents when is intensive (Arpino & Gómez-León, 2020).

#### Key findings and recommendations:

Caregiving has both positive and negative aspects. The impact of caregiving on caregivers' health is gendered and highly heterogeneous as it depends on intensity and type of caregiving, whether or not it is combined with other activities and on the country context.

Researchers need to address both positive and negative aspects of caregiving. To understand the heterogeneity in the caregiving effects, contextual factors at different levels (household, local areas, country) have to be considered.

Generous welfare state provisions can reduce the stress of caregiving and its negative impact on health. In weaker welfare states, families are often over-burdened with care responsibilities toward other generations, leading also to lower female labour force participation of both grandmothers and mothers. Thus, investing in childcare services may produce positive effects on all generations allowing young women to work and older women to remain in the labour force and to have more free time.

#### **III.** Welfare models and retirement:

We studied transition to retirement and formulated several research questions. (1) At the macro level, how to adapt retirement age to evolution of survival? (2) At the micro level, how the life-course affect retirement? What are the consequences on wellbeing?

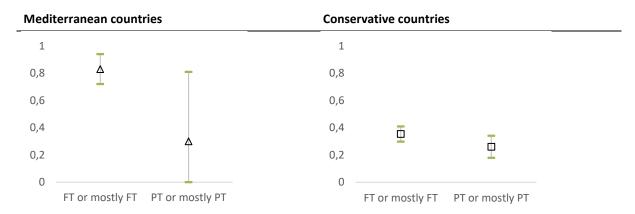
(1) Our research on pensions pointed to the fact that pension systems are the single most important system of intergenerational transfer in current modern nations. Unfortunately, they are rarely balanced and viable in the long run. Measures such as later retirement (in face of longer survival) and lower benefits are needed to put pension systems back on track. In addition, from a gender perspective, welfare regimes aim to compensate mother's opportunity costs to prevent inequalities at retirement. Outcomes vary across regimes and depend on the compensation policy.

At macro level, the effort has been to find a way to properly link retirement age to survival, and suggest ways to make the former increase as the latter progresses. This debate has a long tradition in the specialized literature, but new advancements seem possible and extremely promising (De Santis, 2018). This requires both an accurate study of the evolution of survival (Salinari and De Santis, 2020) and a system for predicting the evolution of the age structure of the population. This seems to have been found in the link between the current and the "reference" age structure, which is the age structure of the stationary population associated with the (constantly changing) period life table (De Santis 2018, De Santis and Salinari, 2018).

(2) At micro level, the focus is on the effects of retirement on individual health and wellbeing, both objectively and subjectively. This analysis, however, is complicated by self-selection: people with worse health status tend to retire earlier and, if not adequately isolated with the proper statistical tools, this behaviour may easily distort the picture and give the false impression that retirement produces worse health conditions. Unfortunately, the longitudinal data necessary for the correction of this bias are rarely ideal: either they do not cover a sufficiently long period or the information they report (on health, wellbeing, working career, etc.) is insufficient. Despite these difficulties, and with same caution, what seems to emerge is that retirement is not associated to any significant change in people's health or wellbeing (Pirani, De Santis, Zanasi, 2021). Rather, those who quit their job when difficulties arise, either in the labour market (unemployment) or in the family sphere, end up being worse off – at least, shortly after retirement. Moreover, health outcomes turn out to be highly heterogeneous, depending on individual socio-economic and job-related characteristics.

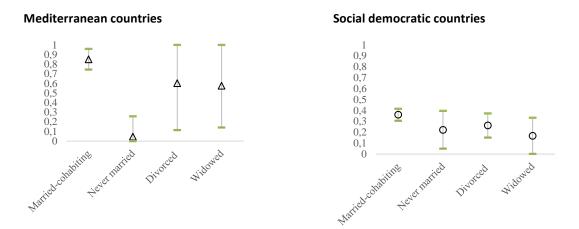
Still at micro level, we consider the effect of motherhood history on retirement intentions. Kim and Rizzi (2020) show that mothers who mostly worked part-time are less likely to intend to retire early than mothers working full-time. This may indicate their need to stay in the labour market because of the disadvantage cumulated in the labour market as a consequence of motherhood. The same occur for never married mothers and widowed compared to married/cohabiting mothers. In the same line, the number of years out of the labour market and each additional child reduce the likelihood to intend to retire. These results are not observed in all welfare regimes (Kim and Rizzi, 2020, FIGURE 3 and FIGURE 4). Availability and quality of policies helping to balance work and family life can mitigate the effect of past work histories on mothers' retirement. Moreover, the pension system can compensate the earnings disadvantage of mothers at old ages. In particularly, relatively high basic pensions conditional on years of residence, typical of social democratic countries and the Netherlands, seem to better compensate for the opportunity costs associated with having children. A limitation of this study concerns selectivity in mechanisms at play in the Mediterranean and post-communist countries: these welfare regimes are characterised by the "exit or full-time work model", with mothers exiting the labour market very early. Thus, our results applied only on women who were able to remain in the labour market until the time of the survey. Another selection might concern attachment to work: some women might intend to stay longer in the labour market, not because of need, but because of attachment to labour. To control for this aspect, we control for the variable measuring the presence of the mother in the labour market when the last child was 6 years old (Kim and Rizzi, 2020).

FIGURE 3 - Predicted probability to intend to retire early by mothers' work-time and by welfare regime



Note: 90% confidence interval. Only groups of countries with statistically significant results are displayed.

FIGURE 4 - Predicted probability to intend to retire early by mothers' marital status and by welfare regime



Note: 95% confidence interval. Only groups of countries with statistically significant results are displayed.

#### **Key findings and recommendation:**

At the macro level, pension systems are the single most important system of intergenerational transfer in current modern nations. Unfortunately, they are rarely balanced and viable in the long run. Policy makers need to consider the adoption of measures such as later retirement (in face of longer survival) and lower benefits to put pension systems back on track.

At the micro level, health does not change significantly for those who formally retire, but it worsens considerably for those who leave the labour market for other reasons. Moreover, health outcomes turn out to be highly heterogeneous, depending on individual socio-economic and job-related characteristics

Future research should focus on understanding and combating the causes of premature exit from the labour market, a relevant concern both in economic terms and on health grounds.

In addition, comprehensive policy measures should be necessary to reduce the risk of obsolescence, avoid age discrimination and stigmatization of unemployment episodes, or to help re-employability of mature workers.

Moreover, we showed that welfare states investing in family policies allow women to remain in the labour market or progress in the career, thus limiting the impact of motherhood on earnings at older ages. Mechanisms of compensation should also be implemented at retirement not to penalize parents who interrupted their career or reduce their work time because of parenthood.

#### IV. Welfare models and care needs of older people

Concerning the care needs of older people, the following research questions were asked: how can welfare models secure the health and wellbeing for older people confronted to caring needs, subject to frailty and nearing the end of life?

We organized our work in three tasks. First, it was crucial to understand how large is the population of the kinless older people, their socio-demographic characteristics, and to describe trends. Our work demonstrated that levels of kinlessness in the US are growing in more recent cohorts (Margolis and Verdery, 2017a, Verdery and Margolis, 2017b); a comparison for 34 countries showed that old-age kinlessness reaches in some countries 10% of old-age population (Verdery et al. 2019, FIGURE 5).

FIGURE 5 - Percentage of older adults (above age 50) with no spouse or child (selected countries 1988-2015, most recent survey)

Notably, kinlesness tends to correlate with social disadvantage, primarily with lower wealth and education. Moreover, kinless older people tend to report worse health and may represent a growing

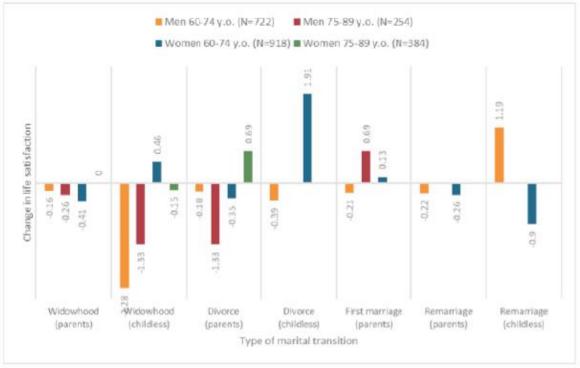
population health concern (Verdery and Margolis, 2017b, Verdery et al. 2019). We also analysed trends and correlates of "silver splits" in Europe (Alderotti et al. 2022) which is a potentially important addition in the field dominated by US literature. As a complement to the study of old-age kinlessness, our research studied the population of grandparents, showing its tremendous regional variation and changes over time in Italy (Di Gessa et al., 2020a), as well in Europe and North America (Margolis and Arpino, 2018, Arpino et al. 2018).

Second, we aimed to examine wellbeing of older adults without kin under various welfare models. Our work stressed the disadvantage of kinless older people in terms of education and health (Verdery et al. 2019, Antczak et al., under review); we also analyzed mortality risks of older people in various family situations (Patterson, Margolis and Verdery. Under review). Moreover, we studied subjective wellbeing of older people (Mikucka, 2020; Albertini and Arpino, under review; Solé-Auró, and Cortina, 2019) and showed a systematic disadvantage of single and childless persons in terms of life satisfaction and social networks. Our work demonstrated that the old-age life satisfaction is shaped by a complex set of mechanisms.

Finally, we investigate gender differences in the risks of being alone in older age and to improve our understanding of how welfare systems address the care needs of kinless men and women. Our work focused on the role of social relationships for older women's mental health after the loss of a partner in European countries (Gumà and Fernández-Carro, 2021). We also demonstrated a buffering effect of having children during the transition to widowhood, which remains specific for men (Mikucka, 2020, FIGURE 6).

FIGURE 6 - Changes of life satisfaction associated with marital transitions. Predictions from fixed-effects models for Switzerland, 1999-2017.

Men 60-74 y.o. (N=722) Men 75-89 y.o. (N=254)



#### Key results and recommendations:

The kin availability is rapidly changing: in the near future, a higher proportion of individuals is going to age without kin (children, grandchildren, etc.). Policy makers need to be aware that kin availability will reduce in the future as kin are often an important source of practical and emotional support. Policies to compensate for the lack of kin support need to be implemented. Our research concluded that intensive care provision to sick or disabled individuals is more likely in countries who lack formal care services and state support. Generous welfare state provisions can reduce the stress of caregiving and its negative impact on health.

#### 5. DISSEMINATION AND VALORISATION

The results of the CREW project were published in major journals and presented at several internal seminar and international conferences. Our research has also appeared in newspapers.

Moreover, at the very start of our project, we created a website (https://crew-more-years-better-lives.org/) and a Twitter account (https://twitter.com/CREW\_project) to spread the results of our research as much as possible. Short articles based on our research appeared also in open access and free blogs and websites such as the SHARE blog and press releases appeared in Population Europe, a network of Europe's leading research centres in the field of policy-relevant population studies.

News releases based on CREW research have been prepared for N-IUSSP (www.niussp.org), which is a news magazine of the IUSSP, the International Union for the Scientific Study of Population. N-IUSSP disseminates scientific findings, and aspires to become a major source of information for journalists around the world. We published a free e-book based on the articles that appeared in N-IUSSP. This eBook summarized the main results of the project in a non-technical language (https://www.niussp.org/ebooks/6989/).

We have prepared "Policy Briefs" and disseminated them at the European Population Conference 2018. See the relevant sections below for further details.

The meeting with stakeholders was a privileged moment to verify content and direction of research and think about future development and collaborations. Because of mixed composition of the stakeholders committee (policy makers, researchers and beneficiaries of policies), it offers new prospective to results. As stated above, a major effort was made for diffusion of results by publishing both in scientific journals and in the N-IUSSP, a news magazine of the International Union for the scientific Scientific Study of Population (IUSSP) that disseminates from population research. Our results were often expressed in terms of risks (probabilities) and outcomes were shown for different profiles of individuals. Stakeholders encourage to push further this process with a greater quantification of results and by suggesting quantitative target to stakeholders (for example, in terms of impact on life expectancy). Stakeholders also stressed that policy decisions often take the form of trade-off between alternative choices and this might be a useful approach in presentation of scientific results. For example, research should inform about the impact of early retirement for viability of the pension system, while considering the effect of a late retirement on individuals health. Most of these suggestions have been considered for the ongoing papers, while further effort will be put in the future to translate our results in quantitative objectives for policy makers.

In addition, as suggested by stakeholders, we will continue encouraging policy makers to include in their agenda gender and social equality at older ages. At least two paths have been identified for this aim in the short term. First, future publications in the N-IUSSP format (see above) with quantitative goals for policy makers to improve social and gender equality. Second, expressing clear policy recommendations at "mixed" conferences, such as the Belgian Demographic Day that will be organised in March 2023, where academic researchers and those from governmental and regional organisations in charge of informing policy makers are both invited.

Overall, the stakeholder meeting has enlarged CREW researchers' network. In particular, it has originated research collaborations between CREW researchers and stakeholders, favoured interactions for the preparation of new research projects, prepared partnership for data gathering and analysis, together with collaborations in Master and PhD committees.

#### 6. PUBLICATIONS

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Dantis, C., Rizzi, E. L., & Baudin, T. (Forthcoming). The association between religiosity and fertility intentions via grandparenting: Evidence from GGS data.

Uccheddu, Damiano, and Ruben van Gaalen. (Under review) 'Children's Strains, Parents' Pains? How Adult Children's Union Dissolution Influences Older Parents' Physical and Mental Health'. https://osf.io/pc3mq/?view\_only=e8807198fa614ddc83edb3ecca9e3b71

Uccheddu, D., & Rizzi, E. (Under review). Ambivalence of intergenerational ties in COVID-19 contagion: A study on European adults 50 years and older using SHARE data.

Zhang J., Fokkema T., and Arpino B. (Forthcoming) Loneliness among Chinese older adults: The role of grandparenthood and grandparental childcare by gender. Forthcoming in Journal of Family Issues. doi: 10.1177/0192513X211041992.

#### Presentations at (scientific) conferences and symposia, including JPI MYBL activities

Presentation	Date
"Women's retirement intentions and work-family life history: a comparison	January 19,
between Belgium, France, Germany and South Korea". At the ARC Workshop on	2017
Family transformations: incentives and norms (Université catholique de Louvain,	
Durbuy Belgium) by Younga Kim	

"Women's Retirement Intentions and Work-family Life History in Cross-national Contexts" at ARC-Demo seminar (Centre de recherche en démographie de l'UCL, Belgium) by Younga Kim  "Childlessness and subjective wellbeing at older ages". Marco Albertini and Bruno Arpino. European Consortium for Sociological Research (ECSR) 2017 Conference, Milan (Italy).  "Earlier women's orientation toward work and family and retirement intention in 13 European countries" at the CREW workshop (Netherlands Interdisciplinary Demographic Institute, The Hague, the Netherlands) by Younga Kim  "Do parenthood and partnership protect quality of life in the old age?" at the CREW workshop (Netherlands Interdisciplinary Demographic Institute, The Hague, the Netherlands) by Małgorzata Mikucka  "Earlier women's orientations toward work-family and retirement intentions in 13 European countries." at Midi de la recherché (Centre de recherche en démographie de l'UCL) by Younga Kim and Ester Rizzi  "Gender and socioeconomic inequalities in health at older ages across different European welfare clusters: evidence from SHARE data, 2004-2015" at Dutch Demography Day 2017, by Damiano Uccheddu  "Do parenthood and partnership protect quality of life in the old age?" at the International Conference on Policies for Happiness and Health (Siena University,
Belgium) by Younga Kim  "Childlessness and subjective wellbeing at older ages". Marco Albertini and Bruno Arpino. European Consortium for Sociological Research (ECSR) 2017 Conference, Milan (Italy).  "Earlier women's orientation toward work and family and retirement intention in 13 European countries" at the CREW workshop (Netherlands Interdisciplinary  Demographic Institute, The Hague, the Netherlands) by Younga Kim  "Do parenthood and partnership protect quality of life in the old age?" at the CREW Workshop (Netherlands Interdisciplinary Demographic Institute, The Hague, the Netherlands) by Małgorzata Mikucka  "Earlier women's orientations toward work-family and retirement intentions in 13 European countries." at Midi de la recherché (Centre de recherche en démographie de l'UCL) by Younga Kim and Ester Rizzi  "Gender and socioeconomic inequalities in health at older ages across different European welfare clusters: evidence from SHARE data, 2004-2015" at Dutch Demography Day 2017, by Damiano Uccheddu  "Do parenthood and partnership protect quality of life in the old age?" at the International Conference on Policies for Happiness and Health (Siena University, 2018
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Arpino. European Consortium for Sociological Research (ECSR) 2017 Conference, Milan (Italy).  "Earlier women's orientation toward work and family and retirement intention in 13 European countries" at the CREW workshop (Netherlands Interdisciplinary Demographic Institute, The Hague, the Netherlands) by Younga Kim  "Do parenthood and partnership protect quality of life in the old age?" at the CREW workshop (Netherlands Interdisciplinary Demographic Institute, The Hague, the Netherlands) by Małgorzata Mikucka  "Earlier women's orientations toward work-family and retirement intentions in 13 European countries." at Midi de la recherché (Centre de recherche en démographie de l'UCL) by Younga Kim and Ester Rizzi  "Gender and socioeconomic inequalities in health at older ages across different European welfare clusters: evidence from SHARE data, 2004-2015" at Dutch Demography Day 2017, by Damiano Uccheddu  "Do parenthood and partnership protect quality of life in the old age?" at the International Conference on Policies for Happiness and Health (Siena University, 2018
### Milan (Italy).  ###################################
"Earlier women's orientation toward work and family and retirement intention in 13 European countries" at the CREW workshop (Netherlands Interdisciplinary Demographic Institute, The Hague, the Netherlands) by Younga Kim  "Do parenthood and partnership protect quality of life in the old age?" at the CREW workshop (Netherlands Interdisciplinary Demographic Institute, The Hague, the Netherlands) by Małgorzata Mikucka  "Earlier women's orientations toward work-family and retirement intentions in 13 European countries." at Midi de la recherché (Centre de recherche en démographie de l'UCL) by Younga Kim and Ester Rizzi  "Gender and socioeconomic inequalities in health at older ages across different European welfare clusters: evidence from SHARE data, 2004-2015" at Dutch Demography Day 2017, by Damiano Uccheddu  "Do parenthood and partnership protect quality of life in the old age?" at the International Conference on Policies for Happiness and Health (Siena University, 2018
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Italy) by Makarrata Mikuaka
Italy), by Małgorzata Mikucka
"Earlier Women's Orientation Toward Work and Retirement Intentions in 13 April 26-28,
European Countries." at the Population Association of America 2018 Annual 2018
Meeting (Denver, USA) by Younga Kim and Ester Rizzi
"Too Much Breaks the Bag: Health Consequences of Combining Grandparental April 2018
Childcare With Other Caregiving Roles"; Population Association of America (PAA)
annual meeting 2018; Bruno Arpino and Madelin Gómez-León.
"Early-Life Conditions and Health at Older Ages: The Mediating Role of Educational April 2018
Attainment and Life Course Trajectories"; Population Association of America (PAA)
annual meeting 2018; Bruno Arpino, Jordi Guma and Albert Julià;
"Like a Black Swan: Non-standard Family Trajectories and Subjective Well-being at April 2018
Older Ages"; Population Association of America (PAA) annual meeting 2018; Bruno
Arpino, Jordi Guma and Albert Julià
"Gender Differences in Active Aging Before and After Retirement Age in 18 April 2018
European Countries"; Population Association of America (PAA) annual meeting
2018; Aida Sole-Auro and Bruno Arpino
"His intentions, her intentions: Marital histories and retirement intentions among May 22-24,
European parents." at: ARC Workshop on Family transformations: incentives and 2018
norms (Université catholique de Louvain, Durbuy, Belgium) by Younga Kim,

"Work-Family Life History and Women's Retirement Intentions in 13 European	June 6-9,
Countries." at the European Population Conference (Brussels, Belgium) by Younga	2018
Kim and Ester Rizzi	
You Can't Have Your Cake and Eat It Too. Does Grandparenting Compete with Social	June 2018
Participation? European Population Conference (EPC) 2018; Merih Ates, Bordone	
Valeria and Bruno Arpino	
Childlessness, Parenthood and Subjective Well-Being. the Relevance of	June 2018
Conceptualizing Parenthood and Childlessness As a Continuum; European	
Population Conference (EPC) 2018; Bruno Arpino and Marco Albertini	
Gender Differences in Active Aging before and after Retirement Age in 18 European	June 2018
Countries; European Population Conference (EPC) 2018; Aïda Solé Auró and Bruno	
Arpino	
"Gender Inequalities in Health in Later Life: Does Informal Caregiving Matter?" at	June 2018
European Population Conference (EPC) 2018, by Damiano Uccheddu	
"Gender Inequalities in Health in Later Life: Does Informal Caregiving Matter?" at	June 2018
Dag van de Sociologie 2018, by Damiano Uccheddu	
Is retirement bad for health? A matching approach at the European Population	June 2018
Conference, by Elena Pirani	34110 2010
"Too much breaks the bag" at European Association of Population Studies-EAPS by	June 2018
Bruno, A. & Gómez-León, M.	June 2010
"Life goes on: Influence of social network on mental health after late-life	June 2018
partnership dissolution" at European Association of Population Studies-EAPS	Julie 2018
conference by Jordi Gumà and Celia Fernández-Carro	
"Is partner's education important to understand health status at older ages?	June 2018
Insights from the Spanish case" at European Association of Population Studies-	Julie 2016
EAPS conference by Jeroen Spikjer and Jordi Gumà	
	Comtombou
"Another look at the relationship between life and income satisfaction" at the II°	September,
Workshop LoLA – Laboratory on Longevity and Ageing by Omar Paccagnella	2018
"Time allocation and wellbeing in later life" at the II° Workshop LoLA – Laboratory	September,
on Longevity and Ageing by Maria Letizia Tanturri	2018
"Quality of life in older age: does the context matter?" at SECOND INTERNATIONAL	September
SEMINAR ON THE ACTIVE AGEING INDEX by Maria Letizia Tanturri (Invited paper)	2018
Is retirement bad for health? A matching approach at ECSR Conference, by Elena	October
Pirani	2018
"Grandparenting, social activities and cognitive functioning". Bruno Arpino and	October
Valeria Bordone. III South Tyrol Workshop on Intergenerational Relationships,	2018
Bressanone (Italy).	
"Life satisfaction and time use in later life: the role of gender and living	November
arrangement" at INTERNATIONAL CREW WORKSHOP. Care, Retirement & Well-	2018
Being Of Older People Across Different Welfare Regimes, by Silvia Meggiolaro	

"Quality of life in older age: does the context matter?", at INTERNATIONAL CREW	November
WORKSHOP. Care, Retirement & Well-Being Of Older People Across Different	2018
Welfare Regimes, by Maria Letizia Tanturri	
"Time Allocation, Loneliness and Wellbeing in Later Life: The Case of Italy", at	November
INTERNATIONAL CREW WORKSHOP. Care, Retirement & Well-Being Of Older People	2018
Across Different Welfare Regimes, by Annalisa Donno	
"Gender Inequalities in Health in Later Life: Does Informal Caregiving Matter?" at	November
Symposium Healthy Ageing: Perspectives from the Behavioural and Social Sciences,	2018
by Damiano Uccheddu	
"Gender Inequalities in Health in Later Life: Does Informal Caregiving Matter?" at	November
Care, Retirement & Wellbeing of Older People Across Different Welfare Regimes	2018
(CREW) International Workshop, by Damiano Uccheddu	
"Gender Inequalities in Health in Later Life: Does Informal Caregiving Matter?" at	November
Dutch Demography Day 2018, by Damiano Uccheddu	2018
"Do parenthood and partnership protect quality of life in the old age?" at JPI–CREW	November
International Workshop (Padua University, Italy) by Małgorzata Mikucka	26, 2018
"A model-driven approach to better identify older people at risk of depression" at	December,
the V° AIQUAV National conference, by Omar Paccagnella	2018
"Life satisfaction and time use in later life: the role of gender and living	December
arrangement" at AIQUAV Conference, by Annalisa Donno	2018
"Time Allocation and Wellbeing in Later Life: The Case of Italy" at POPDAYS by	January
Annalisa Donno	2019
"Gender Inequalities in Health in Later Life: Does Informal Caregiving Matter?" at	April 2019
Population Association of America (PAA) 2019 annual meeting, by Damiano	
Uccheddu	
"His intentions, her intentions: Marital histories and retirement intentions among	April 11-13,
European parents." at: the Population Association of America 2019 Annual meeting	2019
Austin TX, USA) by Younga Kim,	
"Health Status among older Europeans: A study of 4 birth cohorts" at 31st Reves	May 2019
Meeting by Solé-Auró, A. & Gómez-León, M.	
"Do parenthood and partnership protect quality of life in the old age?" at the 3rd	May 23,
ARC Spring Seminar: Family transformations: incentives and norms (Université	2019
catholique de Louvain, Durbuy, Belgium) by Małgorzata Mikucka	
"Time Allocation, Loneliness and Wellbeing in Later Life: The Case of Italy" at EPC	June 2019
(European Population Conference) by Maria Letizia Tanturri	
"Life satisfaction and social activities in later life: the role of gender and living	July 2019
arrangement" at IATUR, by Maria Letizia Tanturri	
"Another look at the relationship between perceived well-being and income	September
satisfaction" at the Statistics for Health and Well-being conference by Omar	2019
Paccagnella	
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Personality traits and grandparental childcare; III South Tyrol Workshop on	September
Intergenerational Relationships, Bressanone (Italy); Bruno Arpino and Valeria	2019
Bordone	
"Health Status among older Europeans: A study of 5 birth cohorts" at XII Congreso	September
de la Asociación de Demografía Histórica- ADEH Conference by Solé-Auro, A. &	2019
Gómez-León, M.	
"Consequences on depression of combining grandparental childcare with other	September
caregiving roles" at at XII Congreso de la Asociación de Demografía Histórica- ADEH	2019
Conference by Bruno Arpino and Madelin Gómez León	
"Retire or not retire, this is the question: How family features modify retirement	September
decisions in different macro-economic contexts in Europe" at ADEH Conference by	2019
Jordi Gumà, Angelo Lorenti and Bruno Arpino	
"Health and wellbeing after retirement. A matching approach to explore differences	November
and similarities" at 2019 Dutch Demography Day by Elena Pirani	2019
"Work, family, and gender inequality in health: an analysis of the impact of work-	November
family histories on later life health" at Dutch Demography Day 2019, by Damiano	2019
Uccheddu	
"Time Allocation and wellbeing in later life: the case of Italy" at 2019 Dutch	November
Demography Day by Annalisa Donno	2019
"Coexistence and persistence of disadvantages in adulthood affect late midlife	5–10
frailty", 2021 IUSSP International Population Conference, Hyderabad, India (India) /	December
Online, by Gustavo De Santis (with Francesca Zanasi, Elena Pirani).	2021
"Exiting the labour market: how? Different impacts on health", 2021 IUSSP	5–10
International Population Conference, Hyderabad, India (India) / Online, 5–10	December
December by Gustavo De Santis (with Francesca Zanasi, Elena Pirani).	2021
"What Drives Population Ageing? A Cointegration Analysis", SIDES Conference,	2-4
Milan (Italy), by Gustavo De Santis (with Giambattista Salinari).	December
	2021
"Pay-as-you-go pension systems: is IPAYG an improvement?", Colloque "Retraite et	7-8
vieillissement", by Gustavo De Santis	October
	2021
"Coexisting disadvantages during the life course and late life vulnerability", FloPS	5
Health Mini Symposium, EUI-Fiesole (Florence), by Gustavo De Santis (with	December
Francesca Zanasi and Elena Pirani)	2019
"Health and wellbeing after retirement. A matching approach to explore differences	20
and similarities", NVD - Dutch Demography Day 2019, Utrecht (NL), by Gustavo De	November
Santis (with Elena Pirani and Francesca Zanasi)	2019
"One or More Rates of Aging? The Extended Gamma-Gompertz Model (EGG)", PAA-	10-13 April
Population Association of America, Austin (Texas), by Gustavo De Santis (with	2019
Giambattista Salinari).	
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"A thus far unnoticed property of the stationary population", Population Days, AISP	24-26
(Associazione Italiana per gli Studi di Popolazione), Milan, Bocconi University, by	January
Gustavo De Santis (with Giambattista Salinari)	2019
"Is retirement bad for health? A matching approach", Causes and Consequences of	29–31
Inequalities in Europe, ECSR - European Consortium for Sociological Research,	October
Sciences Po, Paris, France by Elena Pirani (with Gustavo De Santis, Marina Ballerini,	2018
Alessandra Mattei).	
"Where the current age structure is heading", SIS General Conference, Palermo, by	20-22 June
Gustavo De Santis (with Giambattista Salinari).	2018
"Is retirement bad for health? A matching approach", SIS General Conference,	20-22 June
Palermo, by Gustavo De Santis (with Elena Pirani, Marina Ballerini, Alessandra	2018
Mattei).	
"Modelling the long-term dynamics of population structures. The reference age	6-9 June
structure", Population, Diversity and Inequality, European Population Conference	2018
(EPC-EAPS), Brussels, Belgium, by Gustavo De Santis (with Giambattista Salinari).	
"Is retirement bad for health? A matching approach", Population, Diversity and	6-9 June
Inequality, European Population Conference (EPC-EAPS), Brussels, Belgium, by Elena	2018
Pirani (with Gustavo De Santis, Marina Ballerini, Alessandra Mattei).	
"Work, family, and gender inequality in health: a comparative analysis of the role of	
work-family conflict in later life health", Multidisciplinary Perspectives on Gender	
Gaps in Health, 02/10/2019, Menaggio, Italy, by Damiano Uccheddu (with Anne H.	
Gauthier, Nardi Steverink, and Tom Emery)	
"Children's strains, parents' pains? How adult children's union dissolution	July 2020
influences older parents' physical and mental health", Conference of the European	
Consortium for Sociological Research, 02/07/2020, Amsterdam, the Netherlands, by	
Damiano Uccheddu (with Ruben van Gaalen)	
"Children's strains, parents' pains? How adult children's union dissolution influences	October
older parents' physical and mental health", 18th Meeting of the European Network	2020
for the Sociological and Demographic Study of Divorce, 16/10/2020, Cologne,	
Germany, by Damiano Uccheddu (with Ruben van Gaalen)	
"Children's strains, parents' pains? How adult children's union dissolution influences	November
older parents' physical and mental health", Dutch Demography Week 2020,	2020
19/11/2020, Utrecht, the Netherlands, by Damiano Uccheddu (with Ruben van	
Gaalen)	
"Intergenerational relationships and COVID-19 infection during the pandemic in	March
Europe, Evidence from SHARE data", ECSR Spring School on The Impact of Covid-19	2021
on Social Inequality, 26/03/2021, Turin, Milan, Italy, by Damiano Uccheddu (with	
Ester L. Rizzi)	
"Children's Strains, Parents' Pains? How Adult Children's Union Dissolution	June 2021
Influences Older Parents' Health", SHARE Netherlands User Conference,	
	1

25/06/2021, Rotterdam, the Netherlands, by Damiano Uccheddu (with Ruben van	
Gaalen)	
"Intergenerational relationships and COVID-19 infection during the pandemic in	5-10
Europe. Evidence from SHARE data", 2021 International Population Conference	December
(IPC2021) – IUSSP, 10/12/2021, Online, Online, by Damiano Uccheddu (with Ester L.	2021
Rizzi)	
"Family and Non-Family Ties and Depressive Feelings During the COVID-19	29 June - 2
Pandemic", European Population Conference (EPC-EAPS), Groningen, the	July 2022
Netherlands, by Damiano Uccheddu (with Malgorzata Mikucka and Ester L. Rizzi).	
"Personal distance norms and the mental load of COVID-19 pandemic among older	June, 1-4
adults in 14 European countries", Subjective Well-being 2022, Luxembourg,	2022
Luxembourg, by Malgorzata Mikucka.	
"Personal distance norms and the mental load of COVID-19 pandemic among older	29 June - 2
adults in 14 European countries", European Population Conference (EPC-EAPS),	July 2022
Groningen, the Netherlands, by Malgorzata Mikucka.	
"Personal distance norms and the mental load of COVID-19 pandemic among older	December,
adults in 14 European countries", International Population Conference, Hyderabad,	10, 2021
India, by Malgorzata Mikucka.	
"Loneliness among older adults in Poland. What triggers it and what are the social	December,
differences?" Harmonized longitudinal data on social structure: Polish research in a	2, 2021
cross-national perspective, Warsaw, Poland, by Malgorzata Mikucka.	
"Old-age trajectories of life satisfaction. Do parenthood and partnership have a	November,
protective effect?" Dutch Demography Day 2019, Utrecht University, the	20, 2019
Netherlands, by Malgorzata Mikucka.	
"Old-age trajectories of life satisfaction. Do parenthood and partnership have a	November,
protective effect?" (poster) at: Demographic Aspects of Human Wellbeing,	11-12.,
Wittgenstein Centre Conference 2019, Vienna University of Economics and Business	2019
Austria, by Malgorzata Mikucka.	
"Self-Evaluation, Differential Item Functioning, and Longitudinal Anchoring	June 3,
Vignettes" at the Royal Statistical Society Masterclass: Estimating and correcting for	2021
measurement error in longitudinal studies, online, by Omar Paccagnella	
"Ageing, depression and the first wave of COVID-19 outbreak in Europe" at the XIV	May 29,
Convegno Nazionale di Psicologia dell'Invecchiamento, online, by Omar Paccagnella	2021
Keynote speaker, Seminar "Growing old in couple", organised by the INED - Paris	
Maria Letizia Tanturri: Time allocation, loneliness and well-being in later	November
life:Insights from the italian time use survey	2019
Growing old in a couple - INED seminars and meetings - Scientific meetings - Ined -	
Institut national d'études démographiques	
"Life satisfaction and social activities in later life: the role of gender and living	July 2019
arrangement" at IATUR Annual Meeting, by Maria Letizia Tanturri, Annalisa Donno	
and Silvia Meggiolaro	

"Life satisfaction and time use in later life: the role of gender and living	December
arrangement" at AIQUAV 2018, by Maria Letizia Tanturri, Annalisa Donno and Silvia	2018
Meggiolaro	

#### Communications, public engagement activities and knowledge exchange events

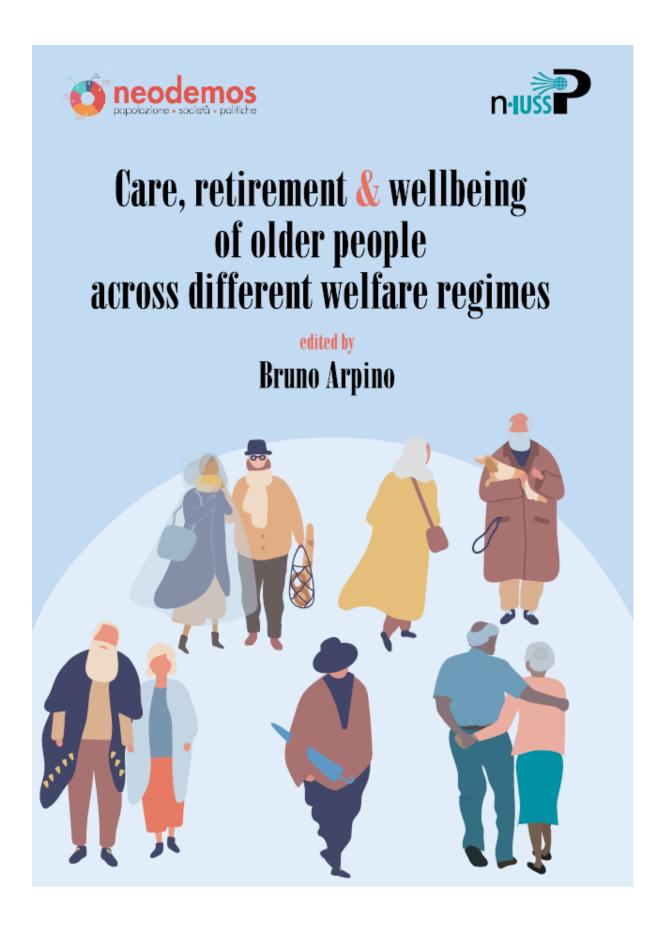
Activity or event	Date	
"Is daddy coming to dinner? Working schedules and fathers' time with children in a		
Sequence Analysis perspective": EDUCATIONAL SEMINAR. Course: Issues and	April 2018	
Methods for Population and Society (MBA Program, University of Padova), by		
Annalisa Donno		
Dissemination of Policy Briefs at the European Population Conference 2018	June 2018	
Short article by Arpino, B., Bordone V. and Balbo N. "GRANDCHILDREN, A	June 2018	
FOUNTAIN OF SATISFACTION" published on The SHARE blog. https://www.share-		
blog.eu/grandchildren-a-fountain-of-satisfaction/		
Short article by Arpino, B., Gumà, J., and Julià, A. "Healthy ageing starts from	Name	
childhood" published on The SHARE blog. https://www.share-blog.eu/healthy-	November 2018	
ageing-starts-from-childhood/	2018	
Presentation "Do parenthood and partnership protect quality of life in the old age?"		
at the Ageing, health and well-being conference (CEPS, Brussels, Belgium) by	June 2019	
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Short article by Arpino, B. & Gómez-León, M. "Stretched to breaking point?		
Caregiving grandparents and depression" published on N-IUSSP.ORG	July 2019	
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depression", in B. Arpino (Ed.) Care, retirement & wellbeing of older people across		
different welfare regimes", IUSSP/Neodemos, 107-111.		
https://www.niussp.org/ebooks/6989/ (ISBN: 978-88-32003-03-1)		
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Rizzi, E., & Younga, K. (2021) Mothers' dilemma at retirement across welfare	November	
regimes. NIUSSP publication. https://www.niussp.org/education-work-	November 2021	
economy/mothers-dilemma-at-retirement-across-welfare-regimes/.	2021	
Stakeholder meeting to communicate and discuss our results with representatives		
of local, national and international organisations. The event featured the following	June 2022	
presentations:		

Presentation "Overview of the objectives of CREW and key		
accomplishments" by Bruno Arpino		
<ul> <li>Presentation "Mothers' dilemma at retirement across welfare regimes" by</li> </ul>		
Ester Rizzi		
<ul> <li>Presentation "Gender and later-life health at the intersection of state,</li> </ul>		
market, and family" by Damiano Ucchedu		
Presentation "Empirical challenges in the analysis of intergenerational		
COVID transmission?" by Tom Emery		
Presenatation "Covid-19 among older adults in Europe: protective		
behaviours, policies, norms, and mental burden" by Malgorzata Mikucka		
And it finished with a roundtable discussion among the stakeholders and		
researchers.		
Mikucka, M. (2021) Swiss, elderly, single, and childless. Happy?. NIUSSP publication	Contombor	
available at https://www.niussp.org/individual-and-population-ageing/swiss-	September	
elderly-single-and-childless-happy/	2021	
Mikucka, M. (2021) Growing old in a post-communist society. Who gets lonely in		
Poland and when? NIUSSP publication available at	July 2021	
https://www.niussp.org/individual-and-population-ageing/growing-old-in-a-post-	July 2021	
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Uccheddu, Damiano, Tom Emery, and Nardi Steverink e Anne H. Gauthier.		
'Gendered health burdens and benefits of starting and ending caregiving'.	November	
Neodemos, 16 November 2021.	2021	
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https://www.niussp.org/health-and-mortality/gender-and-socioeconomic-	2021	
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#### ANNEXES – TABLE OF CONTENTS OF THE E-BOOK



# Care, retirement & wellbeing of older people across different welfare regimes

edited by Bruno Arpino





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